

ABSTRACT OF THE DISCLOSURE

**APPARATUS FOR ISOLATION OF PAYLOADS
WITH LOW TRANSMISSIBILITY**

A payload isolation system for isolating a payload from a base structure upon which the payload is supported. The payload isolation system includes: a motion constraint for maintaining a parallel relationship between the payload and the base structure; and a support for providing vertical and/or lateral support of the payload relative to the base structure such that the transmission of vertical and/or lateral vibration between the payload and the base structure are suppressed. The support means preferably exhibits nonlinear elastic characteristics in response to an effective weight of the payload. The non-linear elastic characteristics preferably include a substantially rigid characteristic at low and high levels of deformation and a compliant characteristic at intermediate levels of deformation. In yet another preferred implementation, the motion constraint means are mechanical linkages.

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